

### **Amendments to the Claims**

This listing of claims will replace all prior versions, and listings, of claims in the application:

### **Listing of the Claims**

1. (Currently Amended) An RF-circuit including an amplifier and a controllable mixer, the controllable mixer having at least one mixing transistor, wherein the at least one mixing transistor is a bipolar transistor, ~~wherein to which mixing transistor~~ an oscillator signal and an input signal are supplied to the mixing transistor, wherein the input signal comprises a useful signal and further signals, and wherein the mixer provides an output signal to a demodulator, which demodulator provides a demodulated output signal ~~is produced as an output of the mixer~~, wherein a controller is provided, which applies a control signal to the mixing transistor as a function of ~~the~~ a signal quality of the demodulated output signal, wherein ~~the~~ an operating point of the at least one mixing transistor can be set by means of the control signal, wherein ~~the~~ an intermodulation immunity and/or ~~the~~ a noise of the mixer in the output signal can be varied as a function of the operating point of the at least one transistor, wherein ~~the~~ a gain of the at least one mixing transistor increases and the intermodulation immunity decreases when the operating point is set such that ~~the~~ a collector current is reduced, and wherein the gain of the at least one mixing transistor decreases and the intermodulation immunity increases when the operating point is set such that the collector current is increased, and wherein a controllable portion of ~~the~~ an overall gain of the RF-circuit is determined by the operating point of the at least one mixing transistor.
2. (Currently Amended) The RF-circuit according to Claim 1, wherein, in addition to ~~the~~ a demodulator which is connected downstream from the mixer, ~~and~~ an evaluation circuit ~~are~~ is provided, for assessment of the signal quality of the demodulated output signal.
3. (Currently Amended) The RF-circuit according to Claim 2, wherein the evaluation circuit assesses ~~the~~ an error rate of a digitally coded signal.
4. (Previously Presented) The RF-circuit according Claim 1, wherein a memory is provided for recording initial values, on the basis of which the signal quality can be assessed and optimized.

5. (Currently Amended) The RF-circuit according to Claim 4, wherein the initial values comprise information about a desired minimum signal quality, ~~the~~ a symbol rate, ~~the~~ a code rate, and/or ~~the~~ a modulation method, and wherein optimization routines for reception optimization can be selected as a function of the initial values.

6. (Currently Amended) A method of controlling a mixer in an RF circuit further comprising an amplifier and a demodulator, wherein the mixer has at least one mixing transistor, wherein the at least one mixing transistor is a bipolar transistor, to which mixing transistor an oscillator signal and an input signal are supplied, wherein the input signal comprises a useful signal and further signals, and wherein the mixer provides an output signal ~~is produced as an output of the mixer to a demodulator, which demodulator provides a demodulated output signal~~, the method comprising the following steps:

- assessing ~~the~~ a signal quality of the demodulated output signal;
- setting ~~the~~ an operating point of the at least one mixing transistor as a function of the quality of the demodulated output signal, wherein ~~the~~ an intermodulation immunity and/or ~~the~~ an noise of the at least one transistor are set by means of the operating point of the at least one mixing transistor, wherein ~~the~~ a gain of the at least one mixing transistor increases and the intermodulation immunity decreases when the operating point is set such that ~~the~~ a collector current is reduced, and wherein the gain of the at least one mixing transistor decreases and the intermodulation immunity increases when the operating point is set such that the collector current is increased, and
- setting a controllable portion of ~~the~~ an overall gain of the RF-circuit by setting the operating point of the at least one mixing transistor.

7. (Currently Amended) The method according to Claim 6, wherein ~~the~~ an error rate of a digitally coded signal is evaluated in order to assess the signal quality.

8. (Previously Presented) The method according to Claim 6, wherein initial values which are stored at the start are selected in order to assess the signal quality and in order to set the operating point of the transistor.

9. (Previously Presented) The method according to Claim 8, wherein different initial values and/or optimization routines are selected for different modulation methods, code rates and/or symbol rates.
10. (Cancelled)
11. (Previously Presented) The RF-circuit of claim 1, wherein the controllable portion of the overall gain of the RF-circuit is exclusively determined by setting the operating point of the at least one mixing transistor.
12. (Previously Presented) The method of claim 6, wherein the controllable portion of the overall gain of the RF-circuit is exclusively determined by setting the operating point of the at least one mixing transistor.